

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims in this application.

1. (Currently Amended) A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;

second plated through holes for receiving a second connecting component;

a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of ~~compensating crosstalk~~ relative to another trace reactively coupled to the phase delay control trace.

2. (Currently Amended) ~~The printed circuit board of claim 1~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;

second plated through holes for receiving a second connecting component;

a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said

one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace and said signal carrying trace are the same, single trace.

3. (Currently Amended) ~~The printed circuit board of claim 1~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;

second plated through holes for receiving a second connecting component;

a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace is made from a material having a conductivity different than the conductivity of a material of other traces on the printed circuit board in order to affect the phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes.

4. (Currently Amended) ~~The printed circuit board of claim 1~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;
second plated through holes for receiving a second connecting component;
a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;
a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace includes multiple redundant phase delay control traces in order to provide increased conductivity.

5. (Currently Amended) ~~The printed circuit board of claim 1~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;
second plated through holes for receiving a second connecting component;
a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;
a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace includes an increased cross-sectional dimension relative to other traces on the printed circuit board in order to provide said increased conductivity.

6. (Currently Amended) ~~The printed circuit board of claim 1.~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;
second plated through holes for receiving a second connecting component;
a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;
a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace is an isolated dead end trace separate from signal carrying trace, said dead end trace isolated to avoid reactive coupling with other traces.

7. (Currently Amended) ~~The printed circuit board of claim 1.~~ A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;
second plated through holes for receiving a second connecting component;
a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of crosstalk;

wherein:

said phase delay control trace includes a first phase delay control trace and a second phase delay control trace.

8. (Original) The printed circuit board of claim 7 wherein:

said first phase delay control trace is the same as said signal carrying trace; and

said second phase delay control trace is an isolated dead end trace separate from signal carrying trace, said dead end trace isolated to avoid reactive coupling with other traces.

9. (Currently Amended) A printed circuit board providing crosstalk compensation, the printed circuit board comprising:

first plated through holes for receiving a first connecting component;

second plated through holes for receiving a second connecting component;

a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes;

said phase delay control trace is an isolated dead end trace separate from signal carrying trace, said dead end trace isolated to avoid reactive coupling with other traces;

said signal carrying trace has an increased thickness in order to affect the phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes.

10. (Original) The printed circuit board of claim 8 wherein:

said first phase delay control trace includes multiple redundant phase delay control traces in order to affect the phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes.

11. (Original) The printed circuit board of claim 1 wherein:

said first connecting component is an outlet.

12. (Original) The printed circuit board of claim 1 wherein:

second connecting component is a wire termination block.

13. (Original) The printed circuit board of claim 1 further comprising:

a crosstalk magnitude control trace in electrical connection with said one of said first plated through holes, said crosstalk magnitude control trace being reactively coupled with another trace to control crosstalk magnitude.

14. (Currently Amended) A telecommunications connector comprising:

a first connecting component for connection with a first cable;

a second connection component for connection with a second cable;

a printed circuit board providing crosstalk compensation, the printed circuit board including:

first plated through holes for receiving a first connecting component;

second plated through holes for receiving a second connecting component;

a signal carrying trace for transmitting a signal from one of said first plated through holes to one of said second plated through holes;

a phase delay control trace in electrical connection with said one of said first plated through holes, said phase delay control trace affecting phase delay of said signal from said one of said first plated through holes to said one of said second plated through holes, the phase delay control trace configured to shift the phase of ~~compensating crosstalk~~ relative to another trace reactively coupled to the phase delay control trace.

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